IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A method for generating pilot estimates indicative of a response of a communication channel between a transmitter unit and a receiver unit, comprising:

receiving and processing a modulated signal at the receiver unit to derive received pilot symbols for a pilot included in the modulated signal;

estimating one or more characteristics of the communication channel based on the received pilot symbols; and

filtering the received pilot symbols in accordance with a particular filter response to provide filtered pilot symbols that comprise the pilot estimates, wherein the particular filter response is selected from among a plurality of possible filter responses based on the one or more estimated channel characteristics.

2. (Original) The method of claim 1, wherein the one or more estimated channel characteristics are indicative of noise in the communication channel.

3. (Original) The method of claim 1, wherein the one or more estimated channel characteristics are indicative of fading in the communication channel.

4. (Original) The method of claim 1, further comprising:

estimating pilot power based on the received pilot symbols;

estimating noise power based on the received pilot symbols; and

deriving a pilot-to-noise power ratio based on the estimated pilot and noise power; and

wherein the one or more channel characteristics are estimated based on the pilot-to-noise power ratio.

5. (Original) The method of claim 4, wherein the noise power is estimated based on differences between successive received pilot symbols.

6. (Original)The method of claim 4, further comprising:

comparing the pilot-to-noise power ratio against one or more thresholds; and

selecting the particular filter response from among the plurality of possible filter responses based on results of the comparing.

7. (Original) The method of claim 1, further comprising:

forming a predicted pilot symbol for a current received pilot symbol based on one or more received pilot symbols other than a current pilot symbol;

determining a prediction error between the predicted pilot symbol and the current received pilot symbol; and

selecting the particular filter response from among the plurality of possible filter responses based on one or more prediction errors for one or more received pilot symbols.

8. (Original) The method of claim 7, further comprising:

evaluating the prediction errors periodically; and

wherein the selecting is performed periodically in conjunction with the evaluating.

9. (Original) The method of claim 7, wherein an immediately prior filtered pilot symbol is used as the predicted pilot symbol for the current received pilot symbol.

10. (Original) The method of claim 7, further comprising:

comparing a value derived from the prediction errors against one or more thresholds, and

wherein the particular filter response is selected based on results of the comparing.

11. (Original) The method of claim 1, wherein the plurality of possible filter responses are associated with a plurality of different bandwidths.

12. (Original) The method of claim 11, wherein a filter response with a narrow bandwidth is selected if the one or more estimated channel characteristics indicate large amounts of noise in the communication channel.

13. (Original) The method of claim 11, wherein a filter response with a narrow bandwidth is selected if the one or more estimated channel characteristics indicate low fading in the communication channel.

14. (Original) The method of claim 11, wherein the plurality of different bandwidths are approximately geometrically related.

15. (Original) The method of claim 1, wherein the filtering is achieved with a finite impulse response (FIR) filter.

16. (Original) The method of claim 1, wherein the filtering is achieved with an infinite impulse response (IIR) filter.

17. (Original) The method of claim 1, wherein the plurality of possible filter responses are derived from a plurality of sets of coefficients.

18. (Currently Amended) The method of claim 1, wherein the modulated signal is a Code Division Multiple Access ~~CDMA~~ signal.

19. (Currently Amended) In a Code Division Multiple Access ~~CDMA~~ system, a method for generating pilot estimates indicative of a response of a communication channel between a base station and a terminal, comprising:

receiving and processing a forward modulated signal at the terminal to derive received pilot symbols for a pilot included in the forward modulated signal;

estimating one or more characteristics of the communication channel; and

filtering the received pilot symbols in accordance with a particular filter response to provide filtered pilot symbols, wherein the particular filter response is selected from among a plurality of possible filter responses based on the one or more estimated channel characteristics, wherein the plurality of possible filter responses are associated with a plurality of different bandwidths; and

wherein the one or more channel characteristics are estimated based on quality of either the received pilot symbols or the filtered pilot symbols.

20. (Original) The method of claim 19, wherein the quality of the received pilot symbols is derived based on estimates of pilot power and noise power.

21. (Original) The method of claim 19, wherein the quality of the filtered pilot symbols is derived based on prediction errors between the filtered pilot symbols and the received pilot symbols.

22. (Original) The method of claim 19, wherein a narrow bandwidth is selected if the one or more estimated channel characteristics indicate large amounts of noise or low fading in the communication channel.

23. (Original) A method for generating pilot estimates indicative of a response of a communication channel between a transmitter unit and a receiver unit, comprising:

receiving and processing a modulated signal at the receiver unit to derive received pilot symbols for a pilot included in the modulated signal;

filtering the received pilot symbols in accordance with a plurality of filter responses to provide a plurality of sequences of filtered pilot symbols;

deriving prediction errors for each filter response based on the received pilot symbols and the filtered pilot symbols derived from the filter response; and

providing the filtered pilot symbols derived from the filter response associated with minimum prediction errors as the pilot estimates.

24. (Original) The method of claim 23, wherein the filtering with the plurality of filter responses are performed concurrently.

25. (Original) The method of claim 23, wherein the deriving prediction errors includes:

for each filter response,

forming a predicted pilot symbol for a current received pilot symbol based on one or more prior received pilot symbols; and

determining a prediction error between the predicted pilot symbol and the current received pilot symbol.

26. (Original) A pilot filter in a wireless communication system, comprising:

a filter operative to receive pilot symbols for a pilot included in a modulated signal, and to filter the received pilot symbols in accordance with a particular filter response to provide filtered pilot symbols; and

a control unit coupled to the filter and operative to estimate, based on the received pilot symbols, one or more characteristics of a communication channel used to transmit the modulated signal, and to select the particular filter response from among a plurality of possible filter responses based on the one or more estimated channel characteristics.

27. (Original) The pilot filter of claim 26, wherein the one or more channel characteristics are estimated based on estimates of pilot power and noise power for the received pilot symbols.

28. (Original) The pilot filter of claim 26, wherein the one or more channel characteristics are estimated based on prediction errors between the filtered pilot symbols and the received pilot symbols.

29. (Original) The pilot filter of claim 26, wherein the plurality of possible filter responses are associated with a plurality of different bandwidths.

30. (Original) A rake receiver in a wireless communication system, comprising:

a plurality of finger processors, each finger processor operative to process a respective signal instance in a received signal, each finger processor further including:

a despreader operative to receive and despread digitized samples in accordance with one or more pseudo-noise (PN) sequences to provide despread samples,

a first channelizer coupled to the despreader and operative to receive and channelize the despread samples to provide data symbols;

a second channelizer coupled to the despreader and operative to receive and channelize the despread samples to provide pilot symbols for a pilot included in the received signal;

a filter coupled to the second channelizer and operative to receive and filter the pilot symbols in accordance with a particular filter response to provide filtered pilot symbols;

a control unit coupled to the filter and operative to estimate, based on the pilot symbols, one or more characteristics of the communication channel for the signal instance being processed by the finger processor, and to select the particular filter response from among a plurality of possible filter responses based on the one or more estimated channel characteristics; and

a pilot demodulator coupled to the first channelizer and the filter and operative to receive and demodulate the data symbols with the filtered pilot symbols to provide demodulated symbols.